2006-08 BRAKES

Conventional Brake Components - Civic GX

SPECIAL TOOLS

NOTE: Refer to the CONVENTIONAL BRAKE COMPONENTS (EXCEPT HYBRID) article for additional information that is not shown in this article.

Ref. No.	Tool Number	Description	Qty
①	07AAE-SEPA101	Brake Caliper Piston Compressor	1
②	07LAF-SM40200	Brake Spring Installer	1

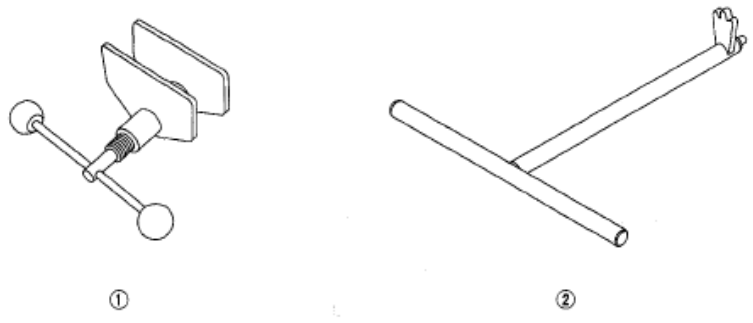


Fig. 1: Identifying Special Tools

COMPONENT LOCATION INDEX

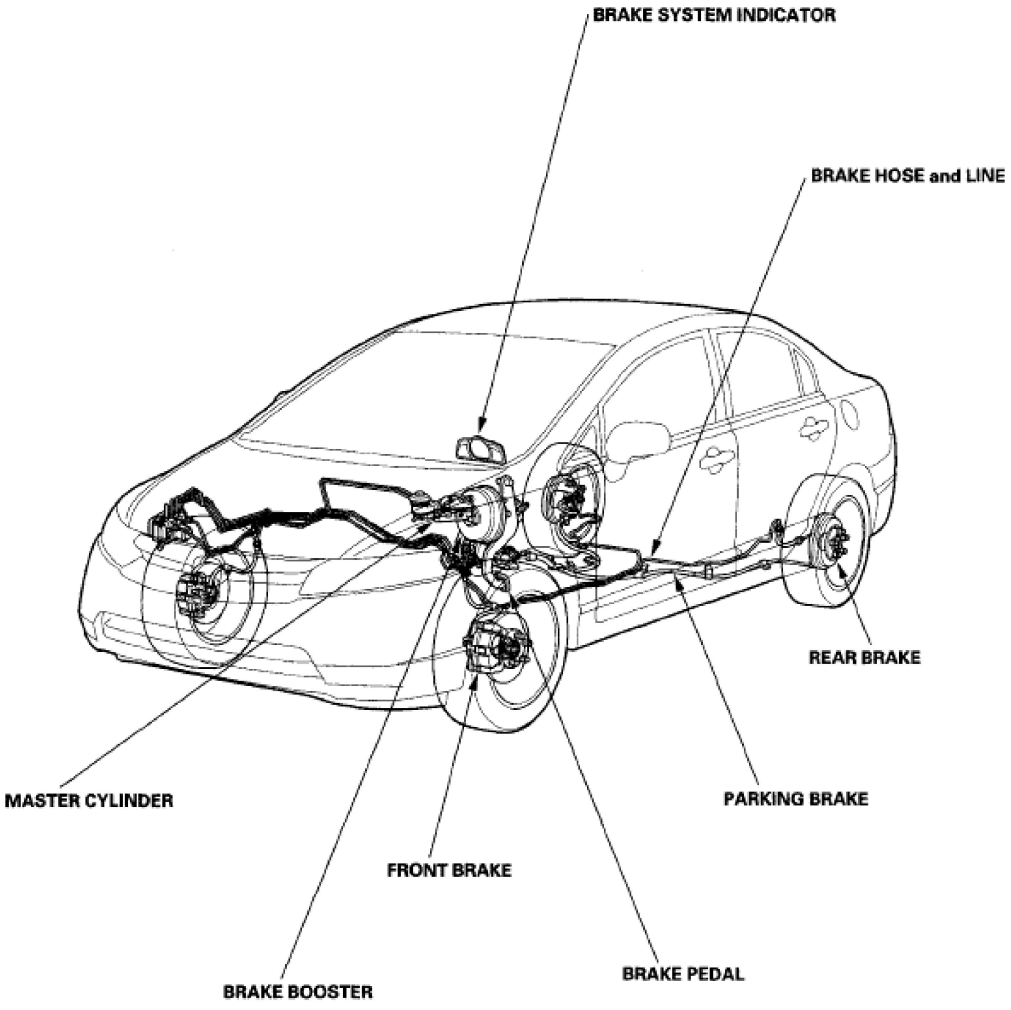


Fig. 2: Identifying Conventional Brake Components Location

FRONT BRAKE PAD INSPECTION AND REPLACEMENT

Special Tools Required

Brake caliper piston compressor 07AAE-SEPA101

CAUTION: Frequent inhalation of brake pad dust, regardless of material composition, could be hazardous to your health.

- **Avoid breathing dust particles.**

- **Never use an air hose or brush to clean brake assemblies. Use an appropriate vacuum cleaner.**

INSPECTION

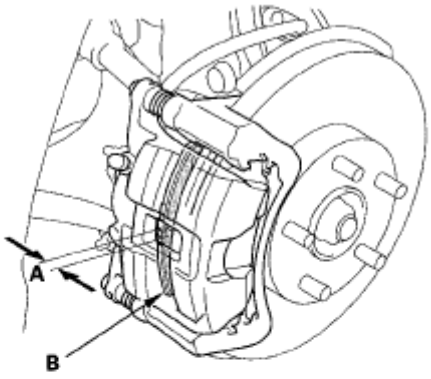
1. Raise the front of the vehicle, and support it with safety stands in the proper locations, refer to the **VEHICLE LIFT** .
2. Remove the front wheels.
3. Check the thickness (A) of the inner pad (B) and outer pad (C). Do not include the thickness of the backing plate.

   Brake pad thickness:

   Standard: 9.6-10.2 mm (0.38-0.40 in.)

   Service limit: 1.6 mm (0.06 in.)

Inner pad



Outer pad

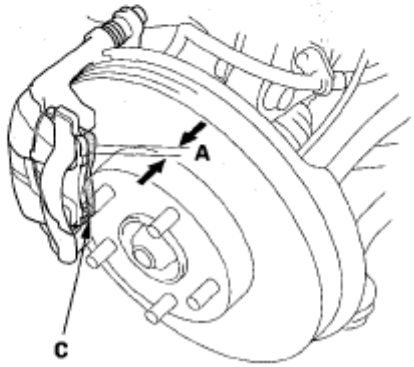


Fig. 3: Identifying Brake Inner Pad And Outer Pad Thickness

4. If the brake pad thickness is less than the service limit, replace the front brake pads as a set.

REPLACEMENT

1. Remove some brake fluid from the master cylinder.
2. Raise the front of the vehicle, and support it with safety stands in the proper locations, refer to the **VEHICLE LIFT** .
3. Remove the front wheels.
4. Remove the flange bolt (A) while holding the caliper pin (B) with a wrench. Be careful not to damage the pin boot, and pivot the caliper (C) up out of the way. Check the hose and pin boots for damage and deterioration.

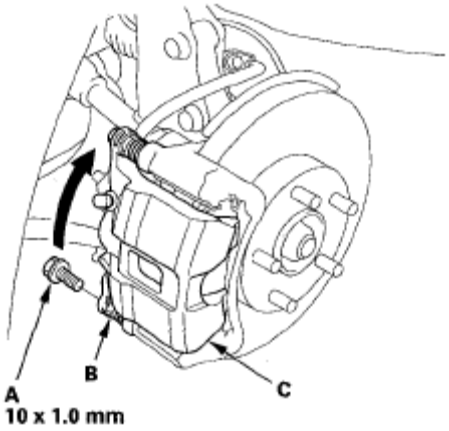


Fig. 4: Removing Flange Bolt Holding Caliper Pin

5. Remove the pad shims (A) and brake pads (B).

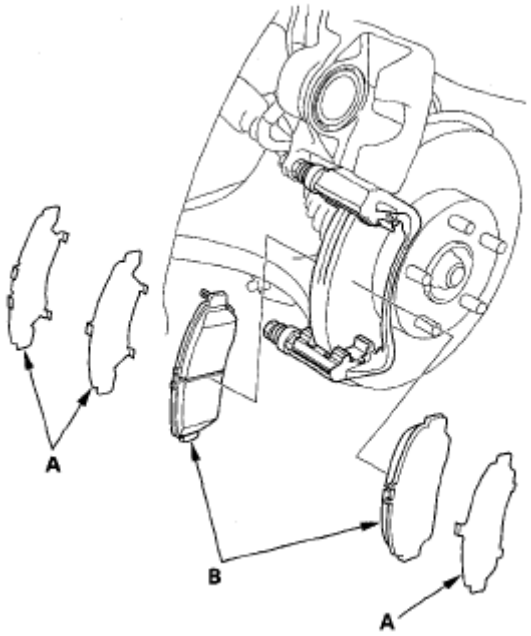


Fig. 5: Identifying Pad Shims And Brake Pads

6. Remove the pad retainers (A).

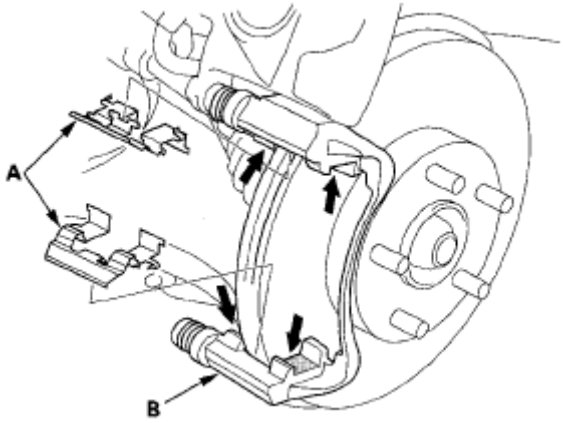


Fig. 6: Removing Pad Retainers

7. Clean the caliper bracket (B) thoroughly; remove any rust, and check for grooves and cracks.
8. Check the brake disc for damage and cracks.
9. Apply a thin coat of M-77 assembly paste (P/N 08798-9010) to the retainers on their mating surfaces (indicated by the arrows) against the caliper bracket.
10. Install the pad retainers. Wipe excess assembly paste off the retainers. Keep the

assembly paste off the discs and pads.

11. Mount the brake caliper piston compressor (A) on the caliper body (B).

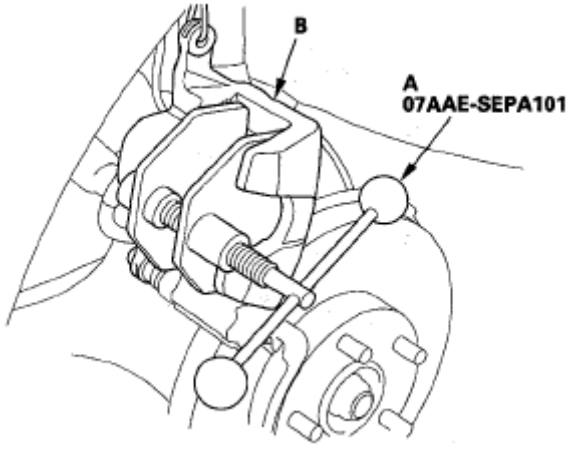


Fig. 7: Identifying Brake Caliper Piston Compressor On Caliper Body

12. Press in the piston with the brake caliper piston compressor so the caliper will fit over the brake pads. Make sure the piston boot is in position to prevent damaging it when pivoting the caliper down.

NOTE: Be careful when pressing in the piston; brake fluid might overflow from the master cylinder's reservoir.

13. Remove the brake caliper piston compressor.
14. Apply a thin coat of M-77 assembly paste (P/N 08798-9010) to the pad side of the shims (A), the back of the brake pads (B) and the other areas indicated by the arrows. Wipe excess assembly paste off the pad shims and brake pads.

    Contaminated brake discs or brake pads reduce stopping ability. Keep grease and assembly paste off the brake discs and brake pads.

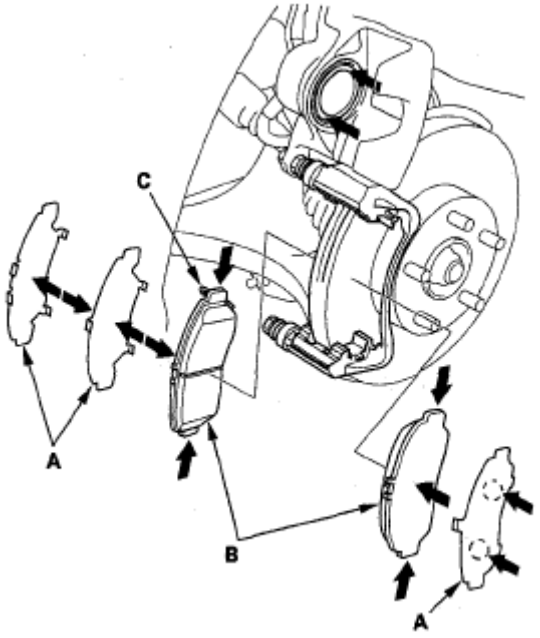


Fig. 8: Identifying Brake Pad And Shim

15. Install the brake pads and pad shims correctly. Install the brake pad with the wear indicator (C) on the upper inside. If you are reusing the brake pads, always reinstall the brake pads in their original positions to prevent a temporary loss of braking efficiency.
16. Pivot the caliper down into position. Install the flange bolt (A), and tighten it to the specified torque while holding the caliper pin (B), with a wrench. Be careful not to damage the pin boot.

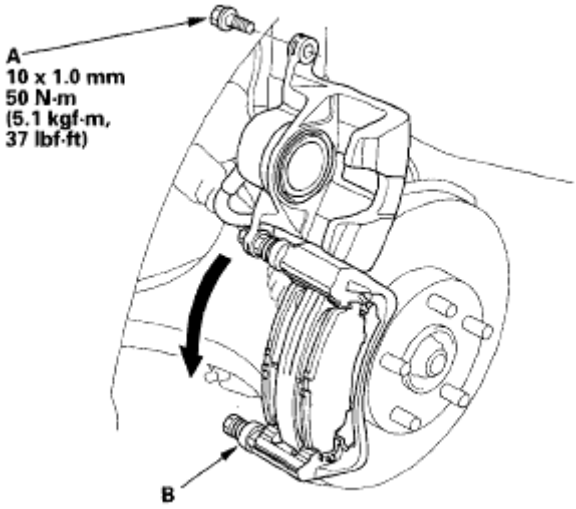


Fig. 9: Tightening Flange Bolt (With Torque Specifications)

17. Press the brake pedal several times to make sure the brakes work.

NOTE: Engagement may require a greater pedal stroke immediately after the brake pads have been replaced as a set. Several applications of the brake pedal will restore the normal pedal stroke.

18. After installation, check for leaks at the hose and line joints or connections, and retighten if necessary. Test-drive the vehicle, then check for leaks, refer to the **BRAKE HOSE AND LINE INSPECTION** .
19. Add brake fluid as needed.

FRONT BRAKE DISC INSPECTION

RUNOUT

1. Raise the front of the vehicle, and support it with safety stands in the proper locations, refer to the **VEHICLE LIFT** .
2. Remove the front wheels.
3. Remove the brake pads (see **REPLACEMENT**).
4. Inspect the brake disc surface for damage and cracks. Clean the brake disc thoroughly, and remove all rust.
5. Install suitable flat washers (A) and wheel nuts (B), and tighten the wheel nuts to the specified torque to hold the brake disc securely against the hub.

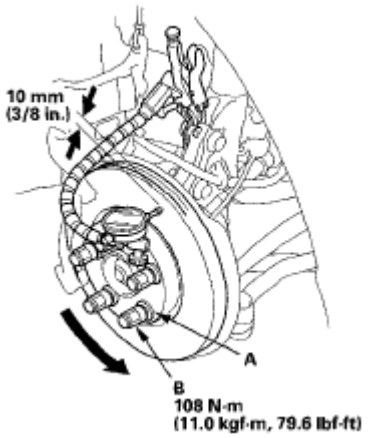


Fig. 10: Installing Suitable Flat Washers And Wheel Nuts (With Torque Specifications)

6. Set up the dial gauge against the brake disc as shown, and measure the runout at 10 mm (3/8 in.) from the outer edge of the brake disc.

   Brake disc runout:

   Service limit: 0.04 mm (0.0016 in.)

7. If the brake disc is beyond the service limit, refinish the brake disc with an on-car brake lathe. The Kwik-Lathe produced by Kwik-Way Manufacturing Co. and the "Front Brake Disc Lathe" offered by Snap-on Tools Co. are approved for this operation.

   Max. refinishing limit: 21.0 mm (0.83 in.)

NOTE:

- **If the brake disc is beyond the service limit for refinishing, replace it, refer to the KNUCKLE/HUB/WHEEL BEARING REPLACEMENT .**
- **A new brake disc should be refinished if its runout is greater than 0.04 mm (0.0016 in.)**

THICKNESS AND PARALLELISM

1. Raise the front of the vehicle, and support it with safety stands in the proper locations, refer to the **VEHICLE LIFT** .

2. Remove the front wheels.
3. Remove the brake pads (see **REPLACEMENT**).
4. Using a micrometer, measure the brake disc thickness at eight points, about 45° apart and 10 mm (3/8 in.) in from the outer edge of the brake disc. Replace the brake disc if the smallest measurement is less than the max. refinishing limit.

   Brake disc thickness:

   Standard: 22.9-23.1 mm (0.90-0.91 in.)

   Max. refinishing limit: 21.0 mm (0.83 in.)

   Brake disc parallelism: 0.015 mm (0.0006 in.) max.

   NOTE: This is the maximum allowable difference between the thickness measurements.

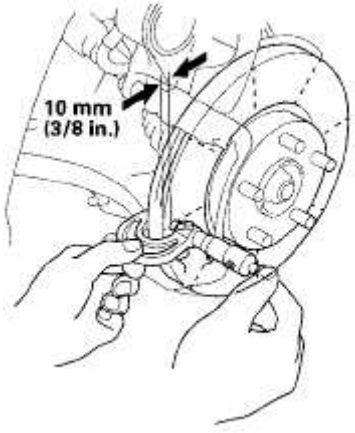


Fig. 11: Identifying Brake Disc Thickness

5. If the brake disc is beyond the service limit for parallelism, refinish the brake disc with an on-car brake lathe. The Kwik-Lathe produced by Kwik-Way Manufacturing Co. and the "Front Brake Disc Lathe" offered by Snap-on Tools Co. are approved for this operation.

   NOTE: If the brake disc is beyond the service limit for refinishing, replace it, refer to the

KNUCKLE/HUB/WHEEL BEARING REPLACEMENT .

FRONT BRAKE CALIPER OVERHAUL

CAUTION: Frequent inhalation of brake pad dust, regardless of material composition, could be hazardous to your health.

- **Avoid breathing dust particles.**
- **Never use an air hose or brush to clean brake assemblies. Use an appropriate vacuum cleaner.**

Remove, disassemble, inspect, reassemble, and install the caliper, and note these items:

NOTE: Make sure that the caliper pins are installed correctly. Upper caliper pin B and lower caliper pin A are different. If the caliper pins are installed in the wrong location, it will cause vibration, uneven or rapid brake pad wear, and possibly uneven tire wear.

- Do not spill brake fluid on the vehicle; it may damage the paint; if brake fluid gets on the paint, wash it off immediately with water.
- To prevent dripping brake fluid, cover disconnected hose joints with rags or shop towels.
- Clean all parts in brake fluid and air dry; blow out all passages with compressed air.
- Before reassembling, check that all parts are free of dirt and other foreign particles.
- Replace parts with new ones as specified in the illustration.
- Make sure no dirt or other foreign matter gets in the brake fluid.
- Make sure no grease or oil gets on the brake discs or pads.
- When reusing brake pads, always reinstall them in their original positions to prevent loss of braking efficiency.

- Do not reuse drained brake fluid. Use only clean Honda DOT 3 Brake Fluid from an unopened container. Using a non-Honda brake fluid can cause corrosion and shorten the life of the system.
- Do not mix different brands of brake fluid as they may not be compatible.
- Coat the pistons, piston seal grooves, and caliper bores with clean brake fluid.
- Replace all rubber parts with new ones whenever disassembled.
- After installing the caliper, check the brake hose and line for leaks, interference, and twisting.

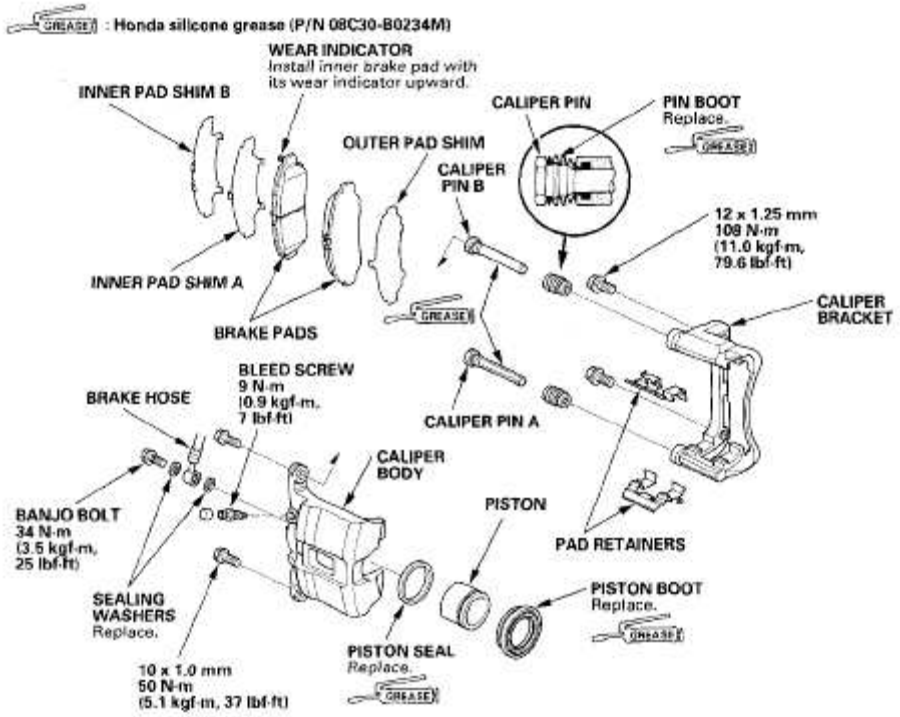


Fig. 12: Exploded View Off Front Brake Caliper (With Torque Specifications)

REAR DRUM BRAKE INSPECTION

CAUTION: Frequent inhalation of brake pad dust, regardless of material composition, could be hazardous to your health.

- **Avoid breathing dust particles.**

- **Never use an air hose or brush to clean brake assemblies. Use an OSHA-approved vacuum cleaner.**

1. Raise the rear of the vehicle, and support it with safety stands in the proper locations, refer to the **VEHICLE LIFT** .
2. Remove the rear wheels.
3. Release the parking brake, and remove the rear brake drum, refer to the **KNUCKLE/HUB BEARING UNIT REPLACEMENT** .

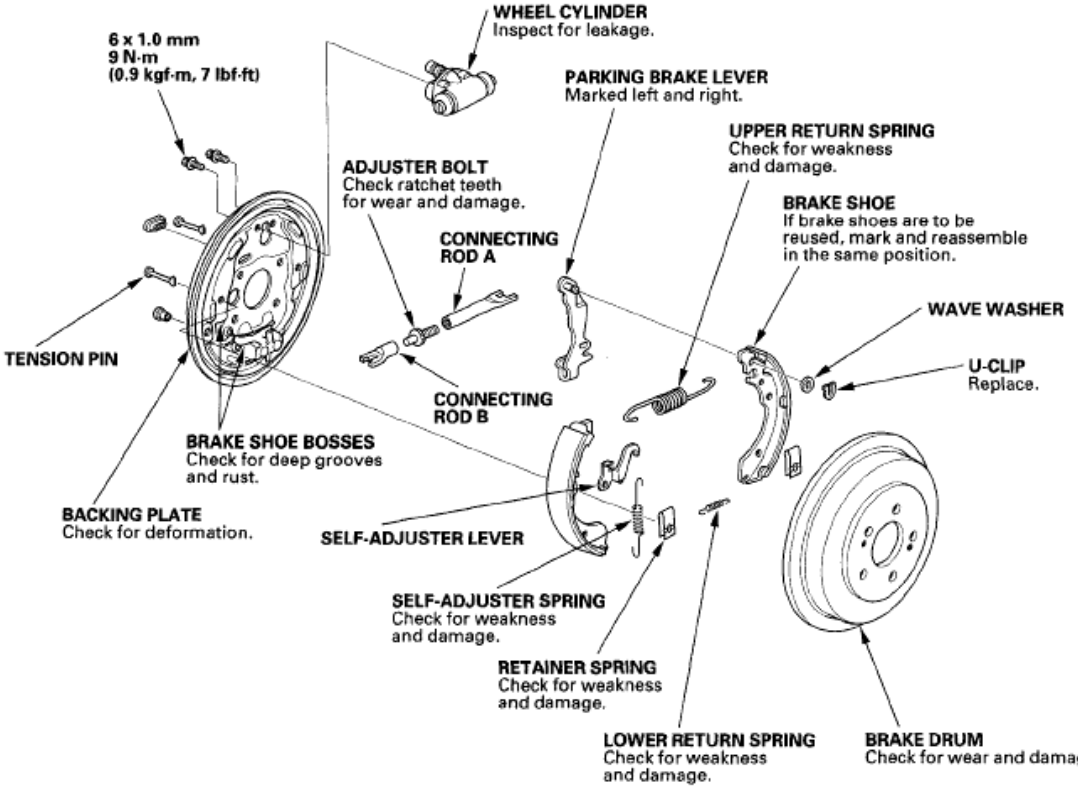


Fig. 13: Identifying Rear Drum Brake Components (With Torque Specifications)

4. Check the wheel cylinder (A) for leakage.

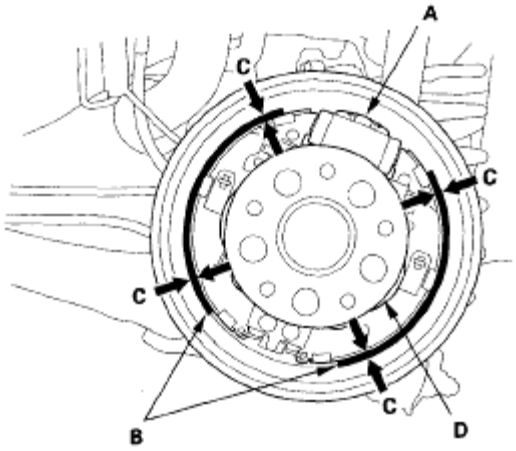


Fig. 14: Checking Wheel Cylinder For Leakage

5. Check the brake linings (B) for cracking, glazing, wear, and contamination.

   NOTE: Contaminated brake linings or drums reduce stopping ability.

6. Measure the brake lining thickness (C). Measurement does not include brake shoe thickness.

   Brake lining thickness:

   Standard: 4.5 mm (0.18 in.)

   Service limit: 2.0 mm (0.08 in.)

7. If the brake lining thickness is less than the service limit, replace the brake shoes as a set.
8. Check the hub (D) for smooth operation. If it requires servicing, replace the hub bearing unit, refer to the **KNUCKLE/HUB BEARING UNIT REPLACEMENT** .
9. Measure the inside diameter of the brake drum with inside vernier calipers.

   Drum inside diameter:

   Standard: 219.9-220.0 mm (8.657-8.661 in.)

Service limit: 221 mm (8.70 in.)

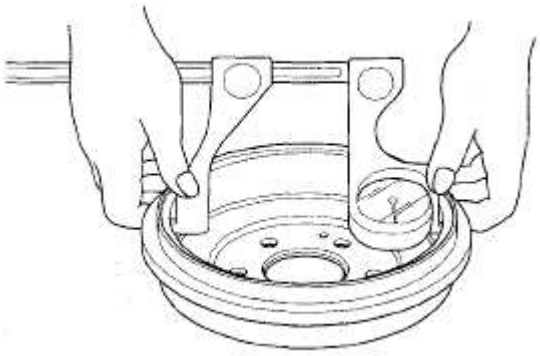


Fig. 15: Measuring Inside Diameter Of Brake Drum With Inside Vernier Calipers

10. If the inside diameter of the brake drum is more than the service limit, replace the brake drum.
11. Check the brake drum for scoring, grooves, corrosion, and cracks.

REAR BRAKE SHOE REPLACEMENT

Special Tools Required

Brake spring installer 07LAF-SM40200

CAUTION: Frequent inhalation of brake pad dust, regardless of material composition, could be hazardous to your health.

- **Avoid breathing dust particles.**
- **Never use an air hose or brush to clean brake assemblies. Use an OSHA-approved vacuum cleaner.**

DISASSEMBLY

1. Raise the rear of the vehicle, and support it with safety stands in the proper locations, refer to the **VEHICLE LIFT** .
2. Remove the rear wheels.

3. Release the parking brake, and remove the brake drum, refer to the **KNUCKLE/HUB BEARING UNIT REPLACEMENT** .
4. Unhook the upper return spring (A) from the rearward shoe using the brake spring installer (B).

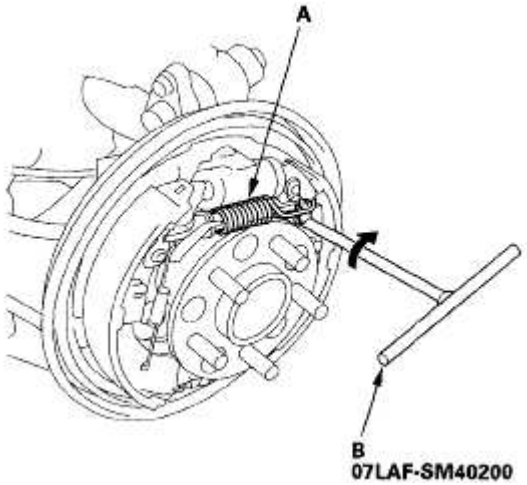


Fig. 16: Identifying Upper Return Spring From Rearward Shoe

5. Remove the tension pins (A) by pushing respective retainer spring (B) and turning the pin.

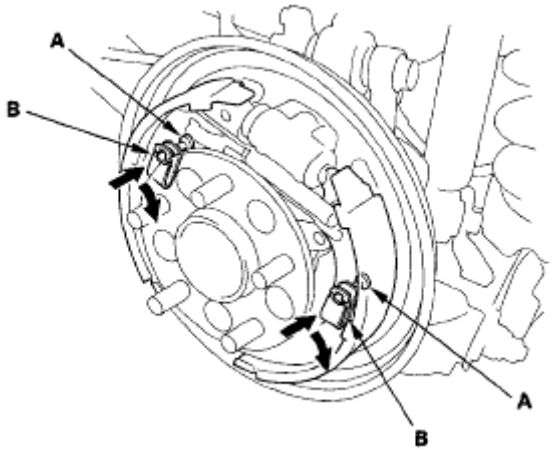


Fig. 17: Pushing Respective Retainer Spring And Turning Pin

6. Remove the lower return spring (A), and remove the brake shoe assembly over the hub.

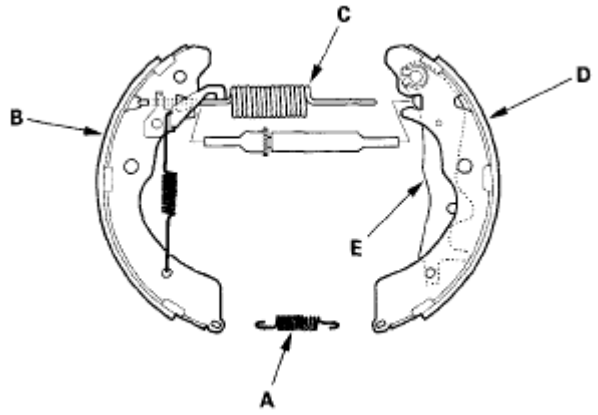


Fig. 18: Identifying Brake Shoe Assembly Over Hub

7. Remove the forward brake shoe (B) by removing the upper return spring (C), and disassemble the brake shoe assembly.
8. Remove the rearward brake shoe (D) by disconnecting the parking brake cable from the parking brake lever (E).
9. Remove the U-clip (A), and wave washer (B), and separate the parking brake lever (C) from the brake shoe (D).

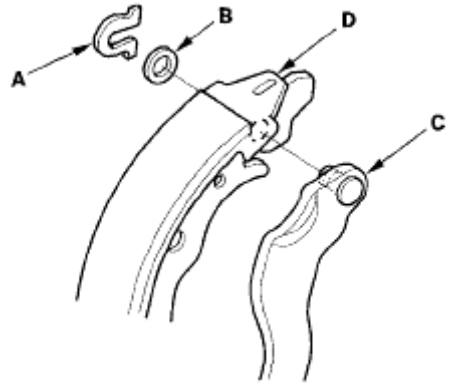


Fig. 19: Identifying U-Clip, And Wave Washer, And Brake Shoe

REASSEMBLY

1. Apply rubber grease to the sliding surface of the pivot pin (A) on the parking brake lever (B).

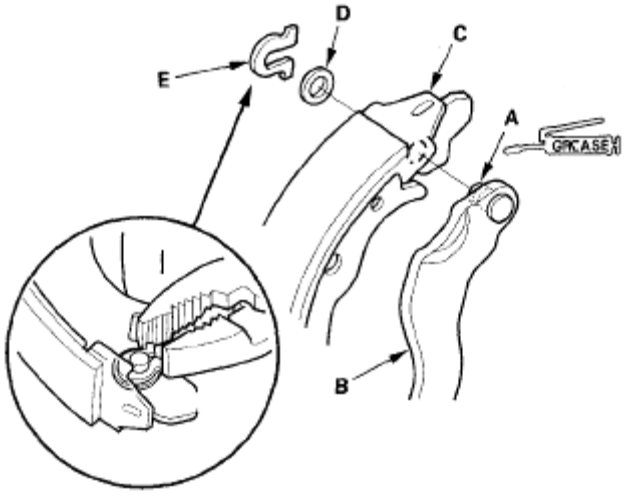


Fig. 20: Identifying Pivot Pin On Parking Brake Lever

2. Install the rearward brake shoe (C) and the wave washer (D) on the pivot pin, and secure with a new U-clip (E).

NOTE: Pinch the U-clip securely to prevent the parking brake lever from coming out of the brake shoe.

3. Connect the parking brake cable to the parking brake lever.
4. Apply a thin coat of rubber grease to the connecting rod ends (A), and the sliding surfaces (B) as shown. Wipe off any excess. Keep grease off the brake linings.

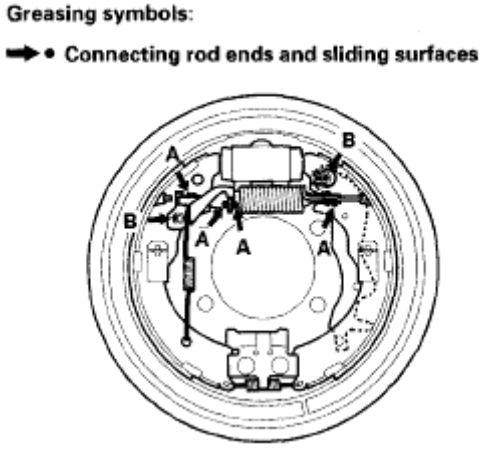


Fig. 21: Identifying Brake Linings

5. Apply a thin coat of Molykote 44MA grease to the shoe ends (A) and to the edge of the shoe surfaces (B) that make contact the backing plate as shown. Wipe off any excess. Keep grease off the brake linings.

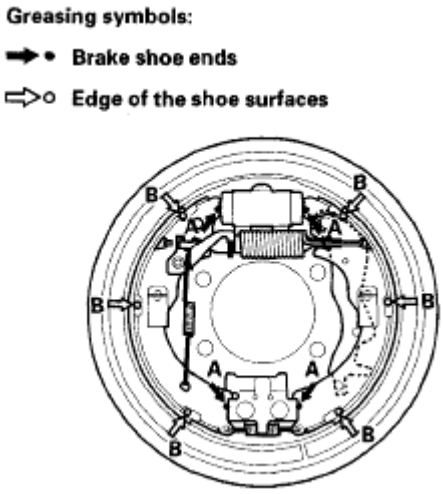


Fig. 22: Identifying Brake Shoe Ends And Edge Of Shoe Surface

6. Install connecting rods A and B on the adjuster bolt (C).

NOTE:

- **Clean the threaded portions of connecting rod A and the sliding surface of connecting rod B, then coat them with rubber grease.**
- **Shorten connecting rod A by fully turning the adjuster bolt.**

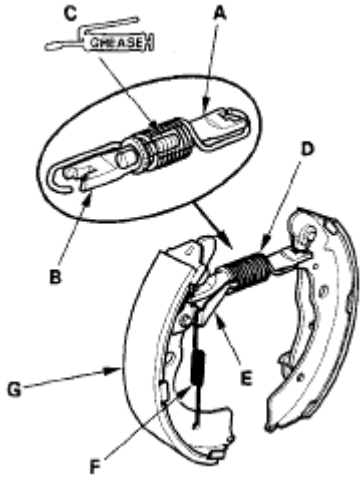


Fig. 23: Identifying Threaded Portions Of Connecting Rod And Sliding Surface Of Connecting Rod

7. Assemble the brake shoes, the upper return spring (D), and the connecting rods with the adjuster bolt against the backing plate, then install the self-adjuster lever (E) and the self-adjuster spring (F) on the forward brake shoe (G).
8. Install the tension pins (A) and the retainer springs (B) by pushing in the respective spring and turning the pin.

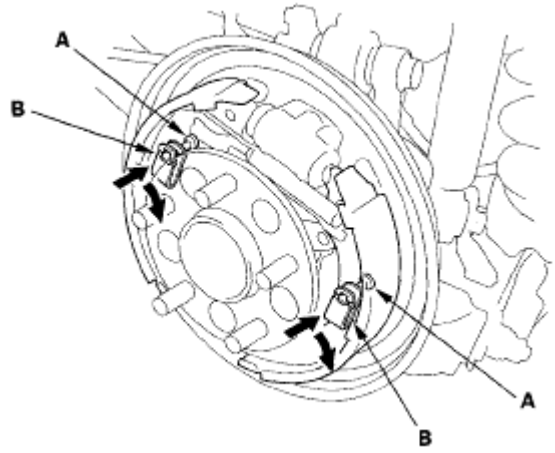


Fig. 24: Pushing In Respective Spring And Turning Pin

9. Install the lower return spring.

NOTE: Make sure the brake shoes positioning on the brake shoe bosses of the backing plate, and fitting the top of the brake shoes onto the wheel cylinder pistons.

10. Hook the end (A) of the upper return spring (B) with the brake spring installer (C).

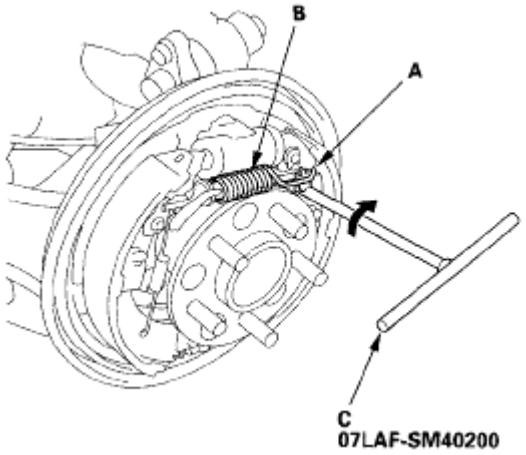


Fig. 25: Identifying Hook End Of Upper Return Spring With Brake Spring Installer

11. Install the brake drum.

NOTE: Before installing the brake drum, clean the mating surface of the rear hub and the inside of the brake drum.

12. Install the rear wheels.
13. Press the brake pedal several times to make sure the brakes work and to set the self-adjusting brake.

NOTE: Engagement of the brakes may require a greater pedal stroke immediately after the brake shoes have been replaced as a set. Several applications of the brake pedal will restore the normal pedal stroke.

14. Do the parking brake adjustment, refer to the **PARKING BRAKE INSPECTION AND ADJUSTMENT** .

PARKING BRAKE CABLE REPLACEMENT

EXPLODED VIEW

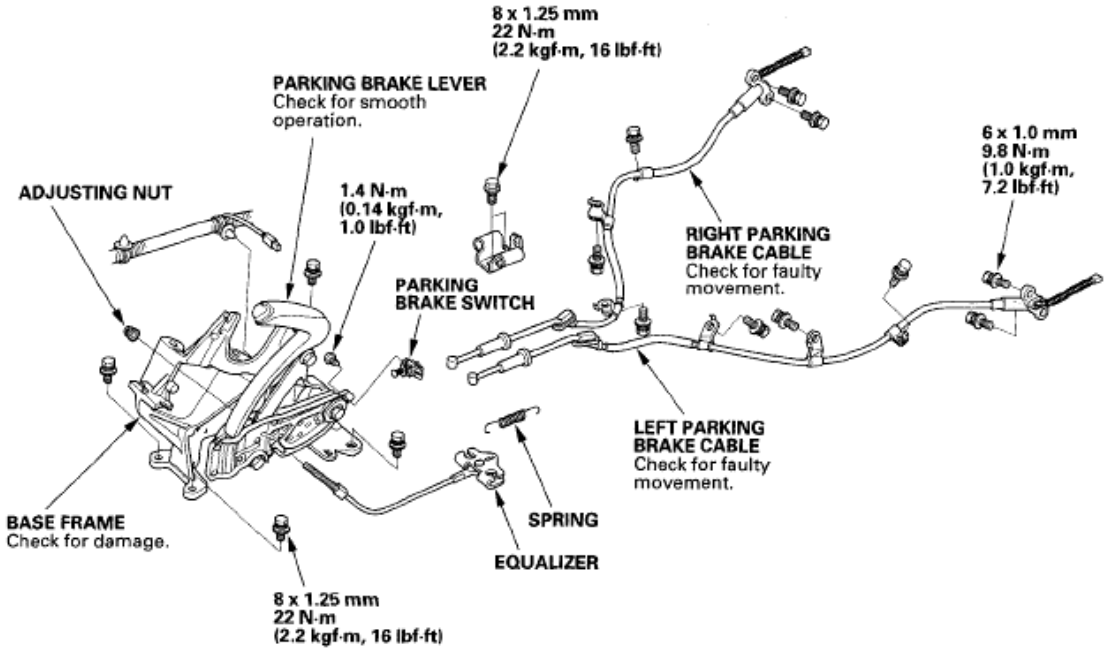


Fig. 26: Exploded View Of Parking Brake Components (With Torque Specifications)

NOTE:

- **The parking brake cables must not be bent or distorted. This will lead to stiff operation and premature failure.**
- **Refer to the EXPLODED VIEW as needed during this procedure.**

1. Loosen the parking brake cable adjusting nut, refer to the **ADJUSTMENT - REAR DRUM BRAKE TYPE** .
2. Remove the brake drum and shoes, and disconnect the parking brake cable from the parking brake lever (see **REAR BRAKE SHOE REPLACEMENT**).
3. Remove the flange bolts (A) and the parking brake cable (B) from the backing plate (C).

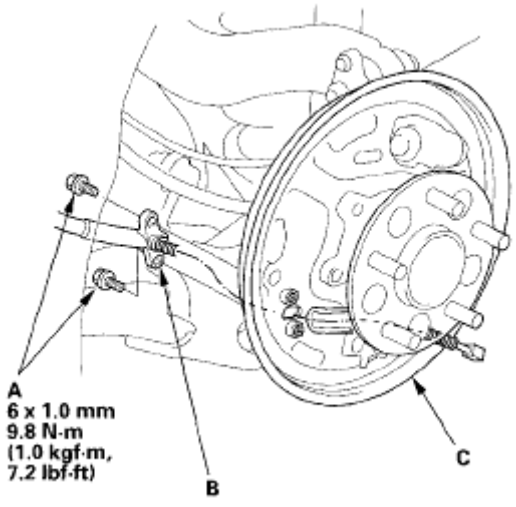


Fig. 27: Identifying Flange Bolts And Parking Brake Cable From Backing Plate (With Torque Specifications)

4. Reinstall the parking brake cable in the reverse order of removal, and note these items:
   - Be careful not to bend or distort the cable.
   - Connect the parking brake cable to the brake lever, and install the brake shoes and drum (see **REAR BRAKE SHOE REPLACEMENT**).
   - Do the parking brake adjustment, refer to the **ADJUSTMENT - REAR DRUM BRAKE TYPE** .

     Apply the parking brake firmly 10 times then adjust it again.